

REMARKS

Reconsideration and allowance are respectfully requested.

Claims 1-8 and 10-28 are currently pending.

We acknowledge with thanks the indication of allowable subject matter in claims 8, 11 and 12. Claims 8 and 11 have been rewritten in independent form and claim 12 is dependent upon allowable claim 11.

Submitted herewith and under separate cover is a certified copy of the priority document GB 0229702.6.

We attach hereto Figure 7 which is presented to illustrate the features disclosed in claim 10 of the present invention. We have corrected the first sheet of the drawings to change the label "prior art" to that of Figure 6. Additionally, Figure 4 has been corrected to include reference character 43 and Figure 5 has been corrected to include reference character 55. Additionally, Figure 1 has been corrected to include an Engine Control Unit. The means to periodically set a reference datum would be a program running within the control means, which would be part of a sub-system in the Engine Control Unit. We have amended the specification to include these features at Page 13 before line 22.

The abstract has been amended to omit the term "means" as required.

The specification has been amended to include Figure 6, which was previously labeled "prior art", and to change "079390" to the correct EP Publication number 0790390, located on Page 8 line 9 as requested.

We have amended the title to be more specific with respect to the scope of the invention as requested.

New claim 29 corresponds to claim 18 dependent upon claim 2. Claims 10, 15, 17 and 21-23 have been amended to be more clear and concise with regards to what the applicant is claiming.

The present invention involves a control system for a rotary assembly surrounded by a casing with a gap between the rotary assembly and the casing. The control system deliberately closes said gap for the system to calibrate the zero gap position. The zero gap position is then used in the open loop control

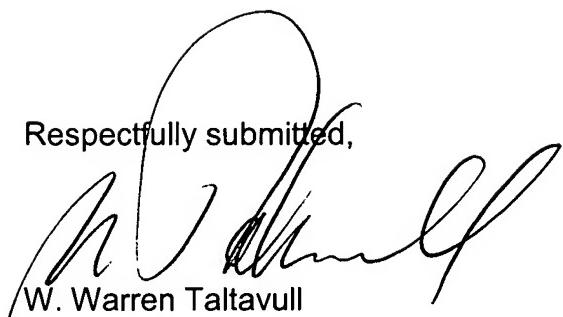
system which is dependent upon the operating condition of the engine as well as responses from the means to detect rub contact.

Regarding the rejections to the claims based on the disclosures of WEST (US 3,227,418), Soviet Union Patent 757,749 and COLLEY (US 4,330,234), the present invention discloses a control means including a means to operate an open loop control strategy dependent upon responses from the means to detect rub contact as claimed in currently amended claim 1. To the contrary, WEST, Soviet Union Patent 757,749 and COLLEY each disclose a closed loop control system (WEST, Column 5 lines 5-10) (COLLEY, Column 3 lines 25-31). The control system of COLLEY is a closed loop for transmitting the measured clearance distance between the blades and the shroud and makes consequent variations in the position of the ring 35. This is a closed loop circuit which consists of no other variables for the control system to consider.

Addressing the rejection to claim 28 as being unpatentable over WEST in view of EP 578,285, the applicant traverses the rejection as both WEST and EP 578,285 disclose having a control means with a closed loop control system. With respect to EP 578,285, the sensors 116 sends signals representing the instantaneous and real-time magnitude of the gap to the controller 118 which compares the real-time magnitude of the gap to a schedule of magnitudes calculated to maximize the efficiency of the compressor (Column 4 lines 37-49). These instantaneous signals of real-time magnitude indicate that the control means is receiving instantaneous signals continuously in a closed loop system. Additionally, EP 578,285 does not disclose detecting blade/casing rubs to redatum a fixed schedule of casing positions as disclosed and claimed in the present invention.

Having addressed all the points raised in the Office action, it is believed that the application is now entitled to favorable treatment and this is earnestly solicited.

Respectfully submitted,



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